

SEQUENCE LISTING

<110> Herr, John
 Mandal, Abinda
 Wolkowicz, Michael
 Klotz, Kenneth

<120> METHODS AND COMPOSITIONS FOR MODULATING FERTILITY

<130> 9426-015-999

<140> 09/890,709

<141> 2001-07-31

<150> PCT/US00/02675

<151> 2000-02-01

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<170> PatentIn version 3.0

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35 40 45
Lys Gly Ala Ala Gly Pro Arg Ser Glu Gly Glu Leu Asn Leu Glu Asn
50 55 60
Leu Glu Glu Lys Glu Ile Ile Val Ile Lys Asp Thr Glu Lys Gln Asp
65 70 75 80
Gln Ser Lys Thr Glu Gly Ser Val Cys Leu Phe Lys Gln Ala Pro Ser
85 90 95
Asp Pro Ile Ser Val Leu Asn Trp Leu Leu Asn Asp Leu Gln Lys Tyr
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Ala Ser Gly Phe Gln Gln Ala Leu Ser Pro Ser Ala Ser Ser Cys Lys
115 120 125
His Lys Val Gly Asp Leu Glu Gly Asp Tyr His Lys Ile Pro Ser Glu
130 135 140

208270.60/06860

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Gln	Arg	Ser	Val	Ala	Thr	Pro	Asp	Gly	Glu	Cys	Ser	Met	Asp	Asp	Leu	
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Ser	Tyr	Tyr	Val	Asn	Arg	Leu	Ser	Ser	Leu	Val	Ile	Gln	Met	Ala	Arg	
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Lys	Glu	Ile	Lys	Asp	Lys	Leu	Glu	Gly	Gly	Asn	Lys	Cys	Leu	His	His	
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Ser	Met	Tyr	Thr	Ser	Gly	Glu	Lys	Gly	Lys	Thr	Ser	Pro	Arg	Ser	Ala	
				245					250					255		
Val	Ser	Lys	Ile	Ala	Ser	Glu	Met	Ala	His	Glu	Ala	Val	Glu	Leu	Thr	
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Ser	Ser	Glu	Met	Arg	Gly	Asn	Gly	Glu	Glu	Gly	Arg	Asp	Gly	Arg	Lys	
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Thr	Phe	Leu	Tyr	Ser	Glu	Leu	Ser	Asn	Lys	Asn	Lys	Cys	Gly	Glu	Lys	
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Gln	Gln	Met	Cys	Pro	Lys	Asp	Ser	Lys	Glu	Phe	Ala	Asp	Ser	Ile	Ser	
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Ala	Cys	Val	Val	Leu	Lys	Arg	Val	Leu	Leu	Lys	His	Thr	Lys	Glu	Ile	
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Leu	Lys	Arg	Leu	Val	Ser	Ala	Leu	Leu	Gly	Glu	Lys	Lys	Glu	Thr	Lys	
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Ser	Gln	Ser	Leu	Ala	Tyr	Ala	Thr	Leu	Lys	Ala	Gly	Thr	His	Asp	Pro	
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Leu	Thr	Ser	Ala	Glu	Arg	Val	Ser	Glu	His	Ile	Leu	Lys	Glu	Ser	Leu	485	490	495
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Lys	Val	Cys	Pro	Ser	Lys	Asp	Glu	Lys	Arg	Glu	Lys	Ile	Ser	Pro	Ser	515	520	525
Thr	Asp	Ser	Leu	Ala	Lys	Asp	Leu	Ile	Val	Ser	Ala	Leu	Met	Leu	Ile	530	535	540
Gln	Tyr	His	Leu	Thr	Gln	Gln	Ala	Lys	Gly	Lys	Asp	Pro	Cys	Glu	Glu	545	550	555
Glu	Cys	Pro	Gly	Ser	Ser	Met	Gly	Tyr	Met	Ser	Gln	Ser	Ala	Gln	Tyr	565	570	575
Glu	Lys	Ser	Gly	Gly	Gly	Gln	Ser	Ser	Lys	Ser	Leu	Ser	Met	Lys	His	580	585	590
Phe	Glu	Ser	Arg	Gly	Ala	Pro	Gly	Pro	Ser	Thr	Cys	Ala	Lys	Glu	Asn	595	600	605
Gln	Leu	Glu	Ser	Gln	Lys	Met	Asp	Met	Ser	Asn	Met	Val	Leu	Ser	Leu	610	615	620
Ile	Gln	Lys	Leu	Leu	Ser	Glu	Ser	Pro	Phe	Ser	Cys	Asp	Glu	Leu	Ser	625	630	635
Glu	Ser	Glu	Asn	Lys	Arg	Cys	Cys	Asp	Ser	Arg	Ser	Lys	Gln	Ala	Ala	645	650	655
Pro	Val	Ala	Lys	Arg	Pro	Glu	Asp	Gln	Ser	Gln	Asp	Ser	Thr	Glu	Met	660	665	670
Asp	Phe	Ile	Ser	Gly	Met	Lys	Gln	Met	Asn	Arg	Gln	Phe	Ile	Asp	Gln	675	680	685
Leu	Val	Glu	Ser	Val	Met	Lys	Leu	Cys	Leu	Ile	Met	Ala	Lys	Tyr	Ser	690	695	700
Asn	Asn	Gly	Ala	Ala	Leu	Ala	Glu	Leu	Glu	Glu	Gln	Ala	Ala	Leu	Ala	705	710	715
Ser	Asn	Gly	Pro	Arg	Cys	Gly	Arg	Glu	Ala	Val	Met	Ser	Gln	Ser	Tyr	725	730	735
Pro	Glu	Thr	Pro	Gly	Pro	Glu	Val	Ile	Val	Asn	Asn	Gln	Cys	Ser	Thr	740	745	750
Ser	Asn	Leu	Gln	Lys	Gln	Leu	Gln	Ala	Val	Leu	Gln	Trp	Ile	Ala	Ala	755	760	765
Ser	Gln	Phe	Asn	Val	Pro	Met	Leu	Tyr	Phe	Met	Gly	Asp	Asp	Asp	Gly	770	775	780
Gln	Leu	Glu	Lys	Leu	Pro	Glu	Val	Ser	Ala	Lys	Ala	Ala	Glu	Lys	Gly	785	790	795
Tyr	Ser	Val	Gly	Asp	Leu	Leu	Gln	Glu	Val	Met	Lys	Phe	Ala	Lys	Glu	805	810	815

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Asp Trp Leu Leu Ala Asn Leu
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Leu Glu Lys Ser Thr Ala Glu Phe Gln Asp Val Arg Phe Lys Pro Gly
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Glu Ser Phe Gly Gly Glu Thr Ser Asn Ser Gly Asp Pro His Lys Gly
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Phe Ser Val Asp Tyr Tyr Asn Thr Thr Thr Lys Gly Thr Pro Glu Arg
85 90 95

Leu His Phe Glu Met Thr His Lys Glu Ile Pro Cys Gln Gly Pro Arg
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Ala Gln Leu Gly Asn Gly Ser Ser Val Asp Glu Val Ser Phe Tyr Ala
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Asn Arg Leu Thr Asn Leu Val Ile Ala Met Ala Arg Lys Glu Ile Asn
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Glu Lys Ile Asp Gly Ser Glu Asn Lys Cys Val Tyr Gln Ser Leu Tyr
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Met Gly Asn Glu Pro Thr Pro Thr Lys Ser Leu Ser Lys Ile Ala Ser
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Glu Leu Val Asn Glu Thr Val Ser Ala Cys Ser Arg Asn Ala Ala Pro
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Asp Lys Ala Pro Gly Ser Gly Asp Arg Val Ser Gly Ser Ser Gln Ser
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Pro Pro Asn Leu Lys Tyr Lys Ser Thr Leu Lys Ile Lys Glu Ser Thr
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Lys Glu Arg Gln Gly Pro Asp Asp Lys Pro Pro Ser Lys Lys Ser Phe
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208270 60706860

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Arg	Pro	Asp	Asp	Phe	Thr	Ala	Ser	Val	Gly	Glu	Gly	Ile	Met	Thr	Tyr	
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Ala	Asn	Ser	Val	Val	Ser	Asp	Met	Met	Val	Ser	Ile	Met	Lys	Thr	Leu	
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Lys	Ile	Gln	Val	Lys	Asp	Thr	Thr	Ile	Ala	Thr	Ile	Leu	Leu	Lys	Lys	
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Phe	Leu	Arg	Asn	Leu	His	Ser	Val	Thr	Gly	Thr	Leu	Met	Thr	Asp	Thr	
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Lys	Met	Tyr	Ser	Glu	Pro	Lys	Ser	Glu	Glu	Glu	Thr	Cys	Ala	Lys	Thr	
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Arg	Asp	Ala	Arg	Ser	Phe	Val	Glu	Ala	Ala	Gly	Thr	Thr	Asn	Phe	Pro	
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Pro Ile Val Gly Asp Gln Glu Gln Ala Glu Lys Lys Asp Leu Arg Ser
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Val Phe Phe Asn Ser Ile Arg Asn Leu Leu Ser Glu Thr Ile Phe Lys
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Arg Asp Gln Ser Pro Glu Pro Lys Val Pro Glu Gln Pro Val Lys Glu
610 615 620

Asp Arg Lys Leu Cys Glu Arg Pro Leu Ala Ser Ser Pro Pro Arg Leu
625 630 635 640

Tyr Glu Asp Asp Glu Thr Pro Gly Ala Leu Ser Gly Leu Thr Lys Met
645 650 655

Ala Val Ser Gln Ile Asp Gly His Met Ser Gly Gln Met Val Glu His
660 665 670

Leu Met Asn Ser Val Met Lys Leu Cys Val Ile Ile Ala Lys Ser Cys
675 680 685

Asp Ala Ser Leu Ala Glu Leu Gly Asp Asp Lys Leu Gly Asp Ala Ser
690 695 700

Arg Leu Thr Ser Ala Phe Pro Asp Ser Leu Tyr Glu Cys Leu Pro Ala
705 710 715 720

Lys Gly Thr Gly Ser Ala Glu Ala Val Leu Gln Asn Ala Tyr Gln Ala
725 730 735

Ile His Asn Glu Met Arg Gly Thr Ser Gly Gln Pro Pro Glu Gly Cys
740 745 750

Ala Ala Pro Thr Val Ile Val Ser Asn His Asn Leu Thr Asp Thr Val
755 760 765

Gln Asn Lys Gln Leu Gln Ala Val Leu Gln Trp Val Ala Ala Ser Glu
770 775 780

Leu Asn Val Pro Ile Leu Tyr Phe Ala Gly Asp Asp Glu Gly Ile Gln
785 790 795 800

Glu Lys Leu Leu Gln Leu Ser Ala Ala Ala Val Asp Lys Gly Cys Ser
805 810 815

Val Gly Glu Val Leu Gln Ser Val Leu Arg Tyr Glu Lys Glu Arg Gln
820 825 830

Leu Asn Glu Ala Val Gly Asn Val Thr Pro Leu Gln Leu Leu Asp Trp
835 840 845

Leu Met Val Asn Leu
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35 40 45
Lys Asp Ala Ala Ser Ser Ser Ser Glu Gly Asn Leu Asn Leu Gly Ser
50 55 60
Leu Glu Glu Lys Glu Ile Ile Val Ile Lys Asp Thr Glu Lys Lys Asp
65 70 75 80
Gln Ser Lys Thr Glu Gly Ser Val Cys Leu Phe Lys Gln Ala Pro Ser
85 90 95
Asp Pro Val Ser Val Leu Asn Trp Leu Leu Ser Asp Leu Gln Lys Tyr
100 105 110
Ala Trp Gly Phe Gln His Glu Leu Ser Pro Ser Thr Ser Thr Cys Lys
115 120 125
His Lys Val Gly Asp Thr Glu Gly Asp Tyr His Arg Ala Ser Ser Glu
130 135 140
Asn Cys Tyr Ser Val Tyr Ala Asp Gln Val Asn Ile Asp Tyr Leu Met
145 150 155 160
Asn Arg Pro Gln Asn Leu Arg Leu Glu Met Thr Ala Ala Lys Asn Thr
165 170 175
Asn Asn Asn Gln Ser Pro Ser Ala Pro Pro Ala Lys Pro Pro Ser Thr
180 185 190
Gln Arg Ala Val Ile Ser Pro Asp Gly Glu Cys Ser Ile Asp Asp Leu
195 200 205
Ser Phe Tyr Val Asn Arg Leu Ser Ser Leu Val Ile Gln Met Ala His
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Lys Glu Ile Lys Glu Lys Leu Glu Gly Lys Ser Lys Cys Leu His His
225 230 235 240
Ser Ile Cys Pro Ser Pro Gly Asn Lys Glu Arg Ile Ser Pro Arg Thr
245 250 255
Pro Ala Ser Lys Ile Ala Ser Glu Met Ala Tyr Glu Ala Val Glu Leu
260 265 270
Thr Ala Ala Glu Met Arg Gly Thr Gly Glu Glu Ser Arg Glu Gly Gly
275 280 285
Gln Lys Ser Phe Leu Tyr Ser Glu Leu Ser Asn Lys Ser Lys Ser Gly
290 295 300
Asp Lys Gln Met Ser Gln Arg Glu Ser Lys Glu Phe Ala Asp Ser Ile
305 310 315 320
Ser Lys Gly Leu Met Val Tyr Ala Asn Gln Val Ala Ser Asp Met Met

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325								330				335			
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Pro	Ala	Ser	Val	Val	Leu	Lys	Arg	Val	Leu	Leu	Arg	His	Thr	Lys	Glu
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Ile	Val	Ser	Asp	Leu	Ile	Asp	Ser	Cys	Met	Lys	Asn	Leu	His	Asn	Ile
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Thr	Gly	Val	Leu	Met	Thr	Asp	Ser	Asp	Phe	Val	Ser	Ala	Val	Lys	Arg
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Met	Leu	Ile	Leu	Leu	Val	Ser	Ala	Leu	Ile	Gly	Glu	Glu	Lys	Glu	Thr
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Lys	Ser	Gln	Ser	Leu	Ser	Tyr	Ala	Ser	Leu	Lys	Ala	Gly	Ser	His	Asp
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Pro	Lys	Cys	Arg	Asn	Gln	Ser	Leu	Glu	Phe	Ser	Thr	Met	Lys	Ala	Glu
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Met	Lys	Glu	Arg	Asp	Lys	Gly	Lys	Met	Lys	Ser	Asp	Pro	Cys	Lys	Ser
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Cys	Pro	Gly	Ser	Thr	Met	Gly	Tyr	Met	Ala	Gln	Ser	Thr	Gln	Tyr	Glu
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Lys	Cys	Gly	Gly	Gly	Gln	Ser	Ala	Lys	Ala	Leu	Ser	Val	Lys	Gln	Leu
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His	Leu	Asp	Ser	Gln	Lys	Met	Asp	Met	Ser	Asn	Ile	Val	Leu	Met	Leu
	610					615					620				
Ile	Gln	Lys	Leu	Leu	Asn	Glu	Asn	Pro	Phe	Lys	Cys	Glu	Asp	Pro	Cys
625					630					635					640
Glu	Gly	Glu	Asn	Lys	Cys	Ser	Glu	Pro	Arg	Ala	Ser	Lys	Ala	Ala	Ser
				645					650				655		
Met	Ser	Asn	Arg	Ser	Asp	Lys	Ala	Glu	Glu	Gln	Cys	Gln	Glu	His	Gln

670

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Gln Lys Ala Thr Asp Ile Met Asp Ala Met Leu Arg Lys Leu Tyr Asn
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Val Met

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Glu His Leu Met Asn Ser Val Met Lys Leu Cys Val Ile Ile Ala Lys
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Ser Cys

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Ser Val Phe Phe Asn Phe Ile Leu Arg
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27

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